



Langley Research Center Safety Alert

SA-14-90

Date: October 10, 1990

TO: All Facility Safety Heads
All Facility Coordinators

FROM: 429/Safety Manager, Head, Safety Engineering Branch, SSQRD

SUBJECT: Monthly Update of Problem/Failure Reports (PFRs)

On a monthly basis, the Safety Engineering Branch will provide you with a listing of the past month's PFRs. Hopefully, this will help generate more interest and participation in the PFR process. REMEMBER - GENERATION OF PFRs IS NOT BY CHOICE; IT IS A REQUIREMENT PRESCRIBED IN LANGLEY HANDBOOK (LHB 1740.2), "FACILITY SAFETY REQUIREMENTS."

As prescribed in LHB 1740.2, all facilities within the System Safety and Configuration Management Program or those operating under Safety Permit are required to comply with the subject reporting procedure.

As defined, a problem/failure is the inability of a system, subsystem, component, part, or material to perform in accordance with specifications, functional test, or operational procedure requirements or expectations. The reporting of problems/failures is limited to research facility apparatus and essential support systems. Building systems, such as air-conditioning and lighting, are not included.

The Facility Safety Head and Facility Coordinator are responsible for this reporting process.

Since the last notice on this subject August 29, 1990, 5 PFR's have been processed from 4 facilities (See Attachment). There are more than 60 facilities to which the system is applicable and it is highly improbable that these other 50+ facilities have not experienced some anomaly requiring the initiation of a PFR.

The PFR system documents and tracks component/equipment failures and aids in the development of a failure database for our high risk research operations. Used properly, it can serve as a mechanism for evaluation of hardware, software, and initiating operating enhancements. However, if failures and anomalies are not reported and an accurate database not developed, the objective of the effort cannot be achieved.

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PFR's can prevent future problems if, but only if you participate in the program.

V. William Wessel
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4SAFE

Enclosure

cc (w/Encl.):
FENG/Chief/Asst. Chief/Branch Heads
OSD/Chief/Asst. Chief/Branch Heads
SSQRD

429/WCH *WCH*

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PROBLEM/FAILURE REPORTS RECEIVED SINCE AUGUST 29, 1990

BUILDING NO. -----	PFR NO. -----	PROBLEM/FAILURE DESCRIPTION -----
1208	01390	1500 HP COMPRESSOR TRIPPED OFF-LINE ON OVERCURRENT JUST AFTER BEING STARTED FOR A RUN SEQUENCE. UPON SHUTDOWN, MOTOR WAS SMOKING AND EDDY CURRENT CLUTCH WAS MUCH HOTTER THAN NORMAL. IT APPEARS THE CLUTCH OVERHEATED AND SEIZED DUE TO A LACK OF COOLING WATER CAUSED BY THE CLUTCH WATER SUPPLY VALVE BEING LEFT CLOSED WHEN A WATER STRAINER WAS CLEANED. THE COMPRESSOR CLUTCH COOLING WATER PRESSURE SWITCH HAD FAILED, ALLOWING THE CLUTCH TO BE ENGAGED WITHOUT WATER FLOWING THROUGH IT. THE COMPRESSOR AND ITS MOTOR CHECK OK.
1220	00920	BROKEN SWITCH ON XYTRON UNIT. COULD NOT TURN UNIT OFF.
1264	00471	MOTORIZED VALVE WOULD NOT OPERATE DUE TO BAD CONTACTS.
1275	00082	LN2 TRAILER OVERPRESSURIZED DUE TO FAILURE OF AUTOMATIC VENT VALVE - VENT VALVE DID NOT RELIEVE PRESSURE DUE TO ELECTRICAL POWER OUTAGE WHICH PREVENTED NORMALLY CLOSED VENT VALVE FROM OPENING.
	00086	LN2 SUPPLY PUMP GENERATING ABNORMAL NOISES ON AN INTERMITTENT BASIS. FAILURE CAUSED BY NORMAL OPERATIONAL WEAR OF THE BEARINGS.